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HISTORY OF THE VESICULAR EXANTHEMA DISEASE AND
PROGRAM TO DATE
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Since the last meeting of this Committee which was held in May of 1953, a great deal has been accomplished. You will recall that this Committee has always been on record as stating that if vesicular exanthema is to be controlled and eradicated that two important factors must be carried out:

1. Control the feeding of garbage.
2. Control the movement of garbage-fed swine.

In fact, most of the time during the last meeting of the Committee was spent discussing proposed regulations that would take the necessary measures to control interstate movements of garbage-fed swine. It was realized by all that the authority to control the feeding of the garbage rested within the authority of each individual State.

Let us now glance at our first slide (Incidence of Infection) and review the monthly incidence of the infection since the disease was first found outside of California. You will notice the increase of infection during June, July and August 1952, as the disease was discovered in the hog belt area. For the next few months it appeared that some progress was being made as the monthly incidence of the infection was greatly reduced. However, a new wave of infection was found during January and February of 1953 and the disease became widespread throughout the country. During this period and the next few months the disease became well seeded in the Mid-Atlantic and New England States.

It is interesting to note that the first garbage-cooking law became effective in December of 1952 and most of the others were passed during the first six months of 1953. Most States were determined to control the disease and developed programs based on controlling the two points mentioned previously.

The disease is gradually being brought under control. It is true that 20,000 infected and exposed swine a month are still involving a high number of swine per month. However, besides outbreaks that were quickly brought under control in Arkansas and Michigan, and States along the Eastern Seaboard, most of these animals reported infected and exposed were found in the large garbage-feeding States such as New Jersey, California and Massachusetts. In fact, during the last six months more than 90 percent of the infection has been found in these three States. Infection has been reported in California in every month during the past year; in every month except May in the State of New Jersey; and has been reported during December, January, February and April in the State of Massachusetts.

Now let us look at slide number two (counties involved) and we will see the counties in which the disease has appeared since June of 1952. Please keep

this picture in mind because you can see how extensive an area in which the disease has appeared, and what may have been the result if steps were not taken to control this disease.

Let's make a comparison with this slide and where the infection is reported as of today (slide number three). Bear in mind the preceding picture as compared to this one, and it can easily be seen that the time, effort and money spent to control this disease has certainly produced some gratifying results.

Now, how was this accomplished? Well let's look at slide number four and we will see one important contributing factor. The fact that all of the States except five have laws that require the heat-treatment of garbage is an accomplishment in which all who took part in it can be proud. The slide shows what action can be taken and results obtained when the American people are properly informed. A sample bill was forwarded to each State and, with the exception of Connecticut, most of the major points in the bill became parts of the laws and regulations that were enacted in 43 States.

The unity of the different segments of the swine industry and the determined attitude to control and eradicate the disease on the part of State regulatory officials have definitely been responsible for the accomplishments to date.

Since we have stated that the three major garbage-feeding States are Massachusetts, New Jersey and California, let us compare them to see what action is being taken within them in reference to the important step in the control of this disease which is "cooking the garbage prior to feeding it to swine."

First, let us look at California. This chart shows considerable garbage-cooking in its northern 21 counties. The red line is the dividing line between the counties below it that are in their entirety under quarantine, and those above it where the quarantines have been lifted or they are only partially under quarantine. In the counties or parts of counties that have been released from quarantine, vesicular exanthema is not known to exist and there is not any raw-garbage-feeding taking place.

Next let us look at Massachusetts, and one glance at this chart shows remarkable progress being made. There are now over 400 garbage-feeders out of 644 feeders cooking the garbage in that State.

Next a look at New Jersey, and out of 475 feeders there is only one feeder who is officially cooking the garbage. Even though it has been almost two years since vesicular exanthema first appeared in this State, very little has been accomplished in trying to take the necessary steps to control and eradicate the disease.

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You will recall the slides that showed where the disease is today as compared to where it has appeared since the initial outbreak that appeared outside of California. Remember it was stated that we should just spend a moment of wondering what would be the situation if we did not attempt to control and eradicate the disease. Well, the largest area under quarantine on the East Coast at the present time is within the State of New Jersey, and this is a perfect example of what could have happened in the other States if they had taken a similar stand.

The last slide shows in what States the disease has been reported since December 1, 1953. It shows that most of the States along the Eastern Seaboard have been involved and on two occasions it appeared to jump to the interior of the country, as it was found in swine fed raw garbage in Arkansas and Michigan. When infection is found and it is decided that raw garbage was chiefly responsible for the spread of the disease, then the first question that arises in our minds is: "Where did the infected pork come from?" Naturally, our first thoughts point to those States that have a high incidence of raw-garbage-feeding and especially those where a great deal of recent infection has been reported.

Certainly a lesson has been learned that we cannot afford to live with this disease, not even in one State in the country. We tried this for twenty years and paid a very high price for the risk that was taken.

It should be stated that all recent infection has been found on the farms and this infection has been kept out of concentration points. However, one movement of infected swine into a stockyard or other concentration point could set up a whole series of outbreaks.

Just a word on inspection: This part of our program is a mighty important one, and once again we would like to impress upon you its significance. It is the difference between reality and wishful thinking. Its benefits are:

- (1) To know the true extent of infection;
- (2) Quarantine infection on premises;
- (3) Control the feeding of garbage;
- (4) Assist feeders with garbage-feeding problems;
- (5) Control the marketing of the garbage-fed swine.

Considerable progress has been made in this respect and it can be said that at least 80 percent of the garbage-fed swine outside of the State of Texas are being inspected at least once a month; 35 percent are being inspected twice a month.

When this inspection is not made often enough and infection is found, the lesions are usually old and no material is available in order to run the test. It makes one shiver to think of it, because then we do not know

whether the swine have recovered from vesicular exanthema, vesicular stomatitis, or foot-and-mouth disease.

The cooking of the garbage gives a great deal of protection against further introduction of the disease by this channel. However, it has been learned that the cooking is only as good as the conscientiousness of the feeder and the inspector, who carries out the supervision of the operation. It is very possible to have very low temperatures in loads of garbage being cooked even though steam is rolling vigorously out of the top of the load.

In many cases these cold spots are due to faulty construction of the installation. This bears out the needed requirement that each State acquire some engineering assistance to cope with this type of problem. The feeders need this kind of help and it would be beneficial to them as well as to the regulatory officials who are supervising the work.

Control over the marketing of garbage-fed swine is essential if this eradication program is to be successful. The fact that the disease has not been reported in our public stockyards for the past six months is an indication of the effectiveness of the measures that have been taken along these lines.

That the cleaning and disinfecting of transportation facilities has played a large part in the present control of this disease is unquestionable. At one time shipments going north, east, south and west were reported infected upon arrival. There isn't any doubt that the facilities were contaminated.

It is not the intention of the Department to require any unnecessary restrictions. You will recall that relaxations were made on certain restrictions on feed, water and rest stations during the winter months. Also, this spring when all expected to clean these type stations after each use, it was considered feasible to require them to be cleaned once a week unless an emergency arose. May we say that such relaxations must be very gradual from a disease-control standpoint. They can be made only when it is assumed that it can be done without risking the progress that has already been attained in the control and eradication of this disease.

In conclusion let us say:

- (1) There has been a great deal of progress made in the control and eradication programs in most of the States throughout the country.
- (2) Apparently we have reached a turning point in which we can go on to a successful conclusion, continue at our present rate of progress, and get to our desired end over an extended period of time, or remain status quo or possibly slip backwards and lose almost everything that we have gained.

(3) A great deal of time, effort and money has been put into this program to get it where it is today, and it will require the unified efforts of all to bring it to a successful end.

(4) Regardless of the progress made, all must realize that the disease is now well seeded in the East Coast, as well as in California. We tried to live with this disease in one State once before and this lesson cost the country millions of dollars. Now it appears on both coasts.

(5) It can be said that the half-way mark in this control and eradication program has been passed. The successful conclusion can be reached, but how soon depends on how much time and effort the State officials and the industry wish to put into such a program to accomplish the desired results.





